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Re: Applicant(s): DeMott et al.
Application Serial No.: 10/617,923
Filed: July 11, 2003
Title: Needled Non-Woven Textile
Composite
Attorney Docket: 5530

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Inventor(s): DeMott et al.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: DeMott et al.
Serial Number: 10/617,923
Filed: July 11, 2003
Title: NEEDED NON-WOVEN TEXTILE COMPOSITE
Group Art Unit: 1771
Examiner: Juska, Cheryl Ann

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I hereby certify that this correspondence, and all correspondence referenced herein as being enclosed with this correspondence, is being sent by facsimile to 571-273-8300 on this day below.	
Date:	<u>August 27, 2007</u>
Signature:	<u>Linda-Ann Manley</u>
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REPLY BRIEF ON APPEAL

Mail Stop Appeal Brief Reply -Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

The following reply appeal brief is submitted in response to the Examiner's
Answer mailed on June 28, 2007.

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STATUS OF THE CLAIMS

Claims 1-6, 8, 10-20, 23, 26-40, 42, and 44-51 have been finally rejected and are the subject of the appeal. Claims 7, 9, 21, 22, 24, 25, 41 and 43 have been cancelled. Claims are attached.

SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 is directed to a textile composite shown, for example, as reference numeral 30 in FIGS. 3 and 4 including an nonwoven needled layer shown as reference numeral 28 in FIGS. 3 and 4 with a soft, first pile-containing side and a second side opposite said first pile-containing side as described at page 2, lines 18-20. The claimed composite also includes an acrylic latex binder material applied to the second side, as described at page 10, line 19 – page 11, line 10. An adhesive layer shown for example as reference numeral 32 in FIGS. 3 and 4 is provided adjacent the second side only, as described at page 11, line 12 – page 12, line 2. A polymeric film layer shown as reference numeral 33 in FIGS. 3 and 4 is positioned adjacent the adhesive layer, as described at page 2, lines 21-22 and page 12, lines 7-19.

Independent claim 27 is directed to a textile including a nonwoven needled layer shown as reference numeral 28 in FIGS. 3 and 4 comprised of polymeric fibers. As described at page 8, lines 7-9, the fibers are selected from the group consisting of polyester fibers, polypropylene fibers, and mixtures thereof. In addition, the polymeric fibers comprise a flame retardant material as set forth at page 4, lines 14-16). Furthermore, a flame retardant polyurethane film layer

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shown as reference numeral 33 in FIGS. 3 and 4 and described at page 12, lines 7-19 is adhesively bonded to the nonwoven needled layer 28. The polyurethane film layer in this embodiment of the invention comprises an aromatic polyether as set forth for example at page 13, lines 1-9.

Independent claim 32 is directed to textile including a nonwoven needled layer shown as reference numeral 28 in FIGS. 3 and 4. The needled layer 28 is comprised of fibers as described, for example, at page 8, lines 7-20. The nonwoven needled layer has a first pile-containing side and a second side opposite the first pile-containing side as shown in FIGS. 3 and 4 and described at page 2, lines 18-20. A binder material comprising an acrylic latex binder is applied to the second side only of the nonwoven needled layer as described at page 10, line 19 – page 11, line 10. A polyester-based adhesive layer shown for example as reference numeral 32 in FIGS. 3 and 4 and described at page 11, line 12 – page 12, line 2 is disposed adjacent the second side of the nonwoven needled layer. An aromatic polyether flame retardant polyurethane-based film layer shown as reference numeral 33 in FIGS. 3 and 4 and described at page 12, lines 7- page 13, line 9 is bonded by the adhesive layer 32 to the nonwoven needled layer 28.

Independent claim 35 is directed to a textile composite including a nonwoven needled layer with a first side with a flat felt texture and a second side as set forth at page 4, lines 20-22. A binder material comprising an acrylic latex binder as described at page 10, line 19 – page 11, line 10 is applied only to the second side of the nonwoven needled layer. An adhesive layer is disposed

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adjacent the second side of the nonwoven needled layer as described at page 11, line 12 – page 12, line 2. A polymeric film layer is bonded to the adhesive layer as described at page 2, lines 21-22 and page 12, lines 7-19.

GROUND OF REJECTION REMAINING
AFTER EXAMINER'S BRIEF

1. Whether or not claims 8 and 42 are properly rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.
2. Whether or not claims 1-6, 8, 9-16, 18-20, 26, 35-40, 42, and 44-50 are properly rejected under 35 U.S.C. 103 as being obvious over Rubin et al. (U.S. 6,492,001) in view of Eschenbach (U.S. 5,672,222).
3. Whether or not claims 17, 23, 27-34, and 51 are properly rejected under 35 U.S.C. 103 as being obvious over Rubin et al. In view of Eschenbach and further in view of Hayes (U.S. 2004/0058603).

This reply brief addresses 1 and 2 above. For claims 17 and 23, these claims depend from claim 1, and thus the arguments apply to them as well, and the secondary reference to Hayes does not provide any basis for rejection.

REMARKS

1. Claims 8 and 42 are not properly rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The Office Action states that the specification as originally filed does not provide support for a second binder material used in conjunction with the first binder material as is presently claimed. Appellants respectfully disagree, and the

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arguments set forth on pages 5-7 of its Applicant's Brief on Appeal are referenced for this reply.

In the Examiner's Answer, the only issue addressed on this matter was the incorrect belief expressed in the Office Action that applicant's specification somehow suggested using a second binder *only as an alternative* --- and *not in addition to* --- the first binder material. A fair reading of the overall specification, including paragraphs 18, 19, 28 (below), including the passages cited in the Examiner's Answer (paragraphs 28 and 29) do not support this rejection. That is, a fair reading of the language is that there are various possibilities, including use of a second binder as shown by claim 8 and 42. There is no specific language cited that prohibits such a combination, and this rejection therefore is unduly restrictive.

The subject matter...need not be described literally or "in haec verba" in order for the specification to satisfy the description requirement. It is sufficient that the specification "convey clearly to those skilled in the art, to whom it is addressed, in any way, the information that the applicant has invented the subject matter later claimed." (*In re Wertheim*, 541 F.2d 257, 262, 191 USPQ 90, 97 (CCPA 1976), *appeal after remand*, 646 F.2d 527, 209 USPQ 554 (CCPA 1981). As noted above, in the present case the specification teaches the use binder fibers blended in the batt as well as a teaching that that binder material such as acrylic latex may be sprayed upon a batt.

Based on these teachings it is respectfully submitted that one of ordinary skill in the art would clearly understand from the specification as originally filed

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that it is possible to use both a spray or a liquid application of a binder material as well as a blend of fibers including lower melting point fibers, that also (secondarily) serve as binders.

2. Claims 1-6, 8, 9-16, 18-20, 26, 35-40, 42, and 44-50 are not properly rejected under 35 U.S.C. 103 as being obvious over Rubin et al. (U.S. 6,492,001) in view of Eschenbach (U.S. 5,672,222).

In the Examiner's Answer, it is stated that the primary reference, Rubin, is "silent with respect to suitable constructions for said nonwoven fabric". In other words, the main and primary component which is claimed in all of applicants claims is a nonwoven fabric. And yet, the "primary" reference used to allege obviousness of applicants' invention does not even contain a description of a nonwoven fabric.

For the Board to hold this invention obvious based upon Rubin would be similar or analogous to holding obvious an *automobile related invention* using a reference *that does not even disclose its application for automobiles*. In other words, this Rubin reference falls so significantly and so completely short of meeting the limitations of the claimed invention that Rubin cannot properly be used, even in combination, to establish a finding of obviousness.

The invention composite of claim 1 comprises:

1. A layered textile composite having a pile, the composite comprising:
 - (a) a nonwoven needled layer, said nonwoven needled layer being comprised of mechanically interlocked staple fibers, said nonwoven needled layer having a first pile-containing side and a second side opposite said first side;
 - (b) a binder material applied to said second side of said nonwoven needled layer, said binder material comprising an acrylic latex binder,

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(c) an adhesive layer adjacent said second side of said nonwoven needled layer; and

(d) a polymeric film layer adjacent said adhesive layer.

The nonwoven needled layer is the base (or substrate) upon which the fabric is manufactured and built. Yet, incredibly, the rejection uses as a primary reference the Rubin reference, which does not even teach element (a): nonwoven needled textiles with a pile! Instead, we are asked, in support of obviousness, to rely on the "Official Notice that nonwoven needled fabrics are 'common' ". There is an absence of the primary element and substance of the invention from the "primary" reference.

Recently, the Supreme Court held that one should avoid a rigid application of the teaching, suggestion, and motivation test. *KSR International Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (2007). But, the Supreme Court in that very same case said that it is *still important*, with regard to obviousness, *that one identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does for a determination of obviousness.* See KRS, 127 S.Ct. at 1731.

In this instance, there is not a plausible or valid reason or rationale identified that would have prompted a person of skill in the art to make this combination. First, remember that Rubin does not even disclose the basic "motor" and "wheels" of the automobile (as per this analogy). By that, it is meant that nonwoven needlepunched fabrics are substantively, in their core structure, *completely different from woven fabrics (hence the industry term "non-woven")*

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and usually are sold for completely different reasons and applications--- and are even manufactured in different manufacturing plants. Yet, this combination has been made in the Examiner's Answer in this instance. In the textile and fabrics industry, people of skill in the art spend *entire careers* working on just one aspect or technique in weaving woven fabrics. Others in other companies work their *entire career* in needlepunching, i.e. taking bales of fibers and combining them on needlepunch machines to make nonwoven needled structures, such as that used in automobile trunk liners and the like.

Although we all seem to agree that Rubin says nothing of needled nonwovens, it still is being used to reject a patent claim here to a fabric made as a needled nonwoven of staple interlocked fibers. It is doubtful, and even unlikely, that weavers know anything significant about needlepunching nonwoven fabrics. Likewise, it is unlikely that needlepunching engineers know anything of detail about weaving machines and woven fabric. This combination just does not make common sense, and it does not pass the common sense or other tests of *KRS* for a finding of obviousness.

The combination of Rubin and Eschenbach is not predictable. There is no solid evidence that persons of skill in the art, wishing to make a needled nonwoven, would look to the Rubin reference, which discloses instead fluorochemical coated woven fabrics. Even if a person of skill in the art should find the Rubin reference, he/she would have no reason, rationale, or desire to substitute and add other claimed components to the Rubin woven.

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The use of a binder of any type that holds or bonds fibers together is fundamentally inconsistent with the teachings of Rubin. Rubin's stated desire is to achieve a natural "hand", softness, and (i.e. feel) of the fabric. See, Col. 2, lines 43-51. Clearly, if the "latex" or repellent suggested in Rubin were hypothetically instead a "binder" or adhesive-type material, the fibers would be held or bonded together (i.e., "bound") *and significant change in fabric tactile character would result* --- which would be against the express wishes of Rubin to have a fabric with a natural "hand" exhibiting softness. Rubin teaches dunking the fabric in a bath, to achieve two-sided coverage. To any extent that the water repellent treatment compositions of Rubin are improperly considered as "binding agents" as required by the instant claims, one of ordinary skill in the art would not have been motivated to utilize a nonwoven needled layer having a soft pile on one of its surfaces as the textile layer in Rubin. In particular, those of ordinary skill in the art would have expected a treatment composition incorporating binding agents to negatively impact the characteristics of the soft pile surface of the present invention by binding a portion of the adjacent soft pile fibers together. To suggest that one could apply a "binder" on both sides of a nonwoven, by immersion or other means --- without substantially and undesirably adversely impacting softness and fabric feel --- is simply not correct and inconsistent with common logic.

In response, the Examiner's Answer indicates that the definition of a binder does not necessarily require a change in textile character of the fabric:

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"...However, contrary to appellant's assertions.... said definition of binder does not necessarily require a significant change in the textile character of the fabric. Hence, the rejection at hand is not inconsistent with the teachings of the reference. Note that, despite Rubin's lack of a recitation to a "binder", the latex based treatment composition of Rubin will inherently hold or bind the fibers of the fabric together".

Examiner's Answer, page 11

The problem with the above analysis is that there still has not been identified a plausible reason, why use of a binder would not reduce the softness or "hand" of the fabric. Common sense says it will. Applicant's urge that the Board apply such common sense to this issue. A latex binder, if (theoretically) applied to a pile, will reduce the softness of the pile. It is common sense, and applicants ask this Board to rely on such common sense in this instance.

Conclusion

Appellant requests the Appeal Board to reverse the decision of the Examiner. In the event that there are additional fees associated with the submission of these papers, Applicant hereby authorizes the Commissioner to withdraw those fees from our Deposit Account No. 04-0500. Applicant hereby petitions (if needed) for authorization to withdraw any fees necessary for this additional time from our Deposit Account No. 04-0500.

Respectfully Submitted,



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CLAIMS APPENDIX

1. A layered textile composite having a pile, the composite comprising:
 - (a) a nonwoven needled layer, said nonwoven needled layer being comprised of mechanically interlocked staple fibers, said nonwoven needled layer having a first pile-containing side and a second side opposite said first side;
 - (b) a binder material applied to said second side of said nonwoven needled layer, said binder material comprising an acrylic latex binder,
 - (c) an adhesive layer adjacent said second side of said nonwoven needled layer; and
 - (d) a polymeric film layer adjacent said adhesive layer.
2. The textile composite of claim 1 wherein said staple fibers are comprised of at least some fibers selected from the group of fibers consisting of: polyester, polypropylene, nylon, polyethylene, polyamides, high density polyethylene, linear low density polyethylene, polytetrafluoroethylene (PTFE), aramids, rayon, acetates, acrylics, olefins, polyethylene terephthalate (PET), isophthalate modified PET, glycol modified PET, and polylactic acid (PLA).
3. The textile composite of claim 1 wherein said fibers comprise polyester fibers.
4. The textile composite of claim 1 wherein said fibers comprise polypropylene fibers.
5. The textile composite of claim 1 wherein said fibers comprise ~~at least~~ a blend of polyester and polypropylene fibers.
6. The textile composite of claim 1 in which the weight of the nonwoven needled layer is between about 5 and about 20 ounces per square yard.

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7. (Canceled)

8. The textile composite of claim 1 wherein the nonwoven needled layer further comprises a second binder material, and said second binder material comprises a low melt polyethylene fiber or a bicomponent polyester fiber.

9. (Canceled)

10. The textile composite of claim 1 wherein said binder material further comprises a flame retardant composition.

11. The textile composite of claim 10 wherein said flame retardant material is provided in said nonwoven needled textile at a concentration of between about 1 and about 12 ounces per square yard.

12. The textile composite of claim 1 in which said fibers contain a flame retardant material.

13. The textile composite of claim 12 wherein said flame retardant material comprises a bromine-containing composition.

14. The textile composite of claim 12 wherein said flame retardant material comprises a phosphorous-containing composition.

15. The textile composite of claim 1 wherein said adhesive comprises a polyester adhesive.

16. The textile composite of claim 1 wherein said polymeric film comprises a polyurethane film.

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17. The textile composite of claim 16 wherein said polyurethane film comprises an aromatic polyether.
18. The textile composite of claim 16 wherein said polyurethane film has a thickness of about 5 mils or less.
19. The textile composite of claim 1 wherein said adhesive layer comprises a heat-activated, polyester adhesive.
20. The textile composite of claim 1 wherein said composite further comprises a fluorochemical coating upon said first side of said nonwoven needled layer.
21. (Canceled)
22. (Canceled)
23. The textile composite of claim 1 wherein said polymeric film layer comprises a halogenated aromatic polyether.
24. (Canceled)
25. (Canceled)
26. The textile composite of claim 15 wherein said polyester adhesive exhibits a melting point of about 200 degrees Fahrenheit or greater.
27. A textile comprising:
 - (a) a nonwoven needled layer, said nonwoven needled layer being comprised of polymeric fibers, said polymeric fibers being selected from the group

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consisting of polyester fibers, polypropylene fibers, and mixtures thereof, at least a portion of said polymeric fibers comprising a flame retardant material, said nonwoven needled layer having a first pile-containing side and a second side opposite said first pile-containing side;

(b) an adhesive layer applied to said second side of said nonwoven needled layer; and

(c) a polyurethane film layer bonded to said nonwoven needled layer, said polyurethane film layer comprising an aromatic polyether.

28. The textile of claim 27 wherein said polyurethane film layer comprises a halogenated aromatic polyether.

29. The textile of claim 27 wherein said nonwoven needled layer is coated on its pile-containing side with a fluorochemical.

30. The textile of claim 27 wherein said adhesive layer comprises a polyester adhesive.

31. The textile of claim 30 wherein said polyester adhesive exhibits a melting point of about 200 degrees Fahrenheit or greater.

32. A textile comprising:

(a) a nonwoven needled layer, said nonwoven needled layer being comprised of fibers, said nonwoven needled layer having a first pile-containing side and a second side opposite said first pile-containing side;

(b) a binder material applied to said second side of said nonwoven needled layer, said binder material comprising an acrylic latex binder,

(c) a polyester-based adhesive layer adjacent said second side of said nonwoven needled layer; and

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(d) a flame retardant polyurethane-based film layer bonded by said adhesive layer to said nonwoven needled layer, said polyurethane-based film layer comprising an aromatic polyether.

33. The textile of claim 32 wherein said nonwoven needled layer further comprises a fluorochemical coating upon said first pile-containing side.

34. The textile of claim 33 wherein said fluorochemical coating comprises a fluorine-containing hydrocarbon which is adapted for repelling moisture and release of stains from said pile-containing side of said nonwoven needled layer.

35. A layered textile composite, the composite comprising:

(a) a nonwoven needled layer, said nonwoven needled layer being comprised of fibers, said nonwoven needled layer having a first side with a flat felt texture, and a second side;

(b) a binder material applied only to said second side of said nonwoven needled layer, said binder material comprising an acrylic latex binder,

(c) an adhesive layer adjacent said second side of said nonwoven needled layer; and

(d) a polymeric film layer bonded to said adhesive layer.

36. The textile composite of claim 35 wherein said fibers are selected from the group consisting of polyester fibers, polypropylene fibers, and mixtures thereof.

37. The textile composite of claim 35 wherein said fibers comprise polyester fibers.

38. The textile composite of claim 35 wherein said fibers comprise polypropylene fibers.

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39. The textile composite of claim 35 wherein said fibers comprise a blend of polyester and polypropylene fibers.

40. The textile composite of claim 35 in which the weight of the nonwoven needled layer is between about 5 and about 20 ounces per square yard.

41. (Canceled)

42. The textile composite of claim 35 wherein the nonwoven needled layer further comprises a second binder material, and said second binder material comprises a low melt polyethylene fiber.

43. (Canceled)

44. The textile composite of claim 35 wherein said binder material further comprises a flame retardant composition.

45. The textile composite of claim 44 wherein said flame retardant composition is provided in said nonwoven needled textile at a concentration of between about 1 and about 12 ounces per square yard.

46. The textile composite of claim 35 in which said synthetic fibers contain a flame retardant material.

47. The textile composite of claim 46 wherein said flame retardant material comprises a bromine-containing composition.

48. The textile composite of claim 46 wherein said flame retardant material comprises a phosphorous-containing composition.

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49. The textile composite of claim 35 wherein said adhesive layer comprises a polyester adhesive.

50. The textile composite of claim 35 wherein said polymeric film comprises a polyurethane film.

51. The textile composite of claim 50 wherein said polyurethane film comprises an aromatic polyether.